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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/918,880	07/31/2001	Mesut Gunduc	BEAS-01044US1 SRM/KFK	2435
23910	7590	08/23/2004	EXAMINER	
FLIESLER MEYER, LLP FOUR EMBARCADERO CENTER SUITE 400 SAN FRANCISCO, CA 94111			LAO, SUE X	
			ART UNIT	PAPER NUMBER
			2126	

DATE MAILED: 08/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/918,880

Applicant(s)

GUNDUC ET AL.

Examiner

S. Lao

Art Unit

2126

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-52 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15, 17-41, 43-52 is/are rejected.
- 7) ☒ Claim(s) 16 and 42 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 5.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

### DETAILED ACTION

1. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2. Claims 1-52 are presented for examination.

3. Claims 1, 25, 42, 43, 51 are objected to because of the following informalities:

Claim 1 misses "." at the end.

Claims 25, 51 recite "one os C, OLE" in lines 2 and 1m respectively, which appears to be "one of C, OLE".

Claims 42, 43 recite "the step of: causes" in lines 2-3, which appears to be "the step of: causing".

Appropriate correction is required.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1, 2, 4, 5, 7, 8, 11, 12, 15, 27, 28, 30, 31, 33, 37, 38, 41 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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Claim 1 recites "an interface mechanism" in line 8, whereas claims 4, 5, 7, 8 recite "the interface" which lacks antecedent basis and is inconsistent with claim 1.

Claim 1 further recites "the server" in line 3, which lacks antecedent basis.

Claim 2 recites "the plugin implementations" in lines 3-4. There is insufficient antecedent basis for this limitation in the claim.

Claims 11, 12 recite "the engine" and "the engine" in line 2, respectively. There is insufficient antecedent basis for each of the limitations in the claim.

Regarding claims 27, 28, 30, 31, 33, note the rejection of claims 1, 4, 5, 7, 8, above.

Regarding claims 37, 38, note the rejection of claims 11, 12, above.

Claim 41 recites "the implementation function" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Due to the multiple occurrence of the 112/2<sup>nd</sup> issues in the claims as filed, it is recommended that applicant correct any other possible such occurrence in the pending claims.

Claim 15 recites "may include" in line 2. It is not clear whether the inclusion is required.

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 26, 27, 52 are rejected under 35 U.S.C. 102(b) as being anticipated by Brobst et al (U S Pat. 5,893,106).

As to claim 1, Brobst teaches a framework architecture system (OO server framework) for allowing a client application (client) to communicate with a server component application (server), comprising:

- a server engine (server main) for providing client access to the server, the server engine further including (fig. 4):

- a server component (SmServer class) for providing a service (whose objects act as hosts of service objects, col. 9, lines 30-38);

- an implementation (service object SO) within the server component for providing functions of the service (actually perform server function, col. 8, lines 2-7);
- and,

- an interface mechanism (server objects) for allowing a client application to access the implementation (primary interface between server and client, col. 3, lines 46-55).

As to claims 26, 52, Brobst teaches the implementation is a software extension (extensions, col. 2, lines 50-54).

As to claim 27, it is a method claim of claim 1, thus note claim 1 for discussion.

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 2, 3, 11-14, 28, 29, 37-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brobst et al as applied to claims 1, 27 and in view of Hayes (U S Pat. 6,006,279).

As to claim 2, Brobst teaches a plurality of implementations (objects of Service Object, col. 3, lines 55-62), but fails to teach the interface mechanism allows the client application to select and access one of plugin implementations.

Hayes teaches a framework architecture (plug-in host framework), wherein an interface mechanism allows the client application to select and access one of multiple plugin implementations (creatPluginMenu(), invokePlugin(), col. 6, lines 3-10, 43-55; col. 7, lines 18-24, 31-50). Therefore, it would have been obvious to allow the client application to select and access one of multiple plugin implementations via the interface mechanism in Brobst. One of ordinary skill in the art would have been motivated to combine the teachings of Brobst and Hayes because this would have simplified the interface to access plugin modules (Hayes, col. 1, line 66 – col. 2, line 3; col. 2, lines 56-61).

As to claim 3, Hayes teaches the implementation is a plugin implementation (plugin class, col. 8 line 61 - col. 9, line 2). Hayes teaches the implementation can be replaced by another implementation at run time in that the plugins are DLLs (col. 7, lines 59-62) which are typically loaded when needed and unloaded when no longer needed. Note discussion of claim 2 for a motivation to combine.

As to claim 11, Hayes teaches the implementations/plugins are plugged into an engine and removed from the engine by a registration process (plugin manager 40, col. 8, line 1- col. 9, line 2). Note discussion of claim 2 for a motivation to combine.

As to claims 12-14, Brobst as modified by Hayes teaches (Hayes) the implementation is stored in a container that is loaded by the engine at run-time (plug-in folder, col. 8, lines 32-46), the container is a dynamic loadable library (DLL, col. 7, lines 59-67), the container contains multiple plugins [inherent to Hayes]. Note discussion of claim 2 for a motivation to combine.

As to claim 28, note discussion of claim 2 and Hayes further teaches the plurality of plugin implementations are provided by the interface (plugin folder, plug-n class, col. 8, lines 32-64). Note discussion of claim 2 for a motivation to combine.

As to claims 29, 37-40, these are method claims of claims 3, 11-14, thus note claims 3, 11-14, respectively, for discussions.

10. Claims 4-10, 18-25, 30-36, 44-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brobst et al as applied to claims 1, 27 and in view of Foody et al (U S Pat. 5,732,270).

As to claim 4, Foody teaches a framework architecture, including an interface definition specification (class description framework 2, object exporting framework 7) for the functions provided by the implementation of the server component. Col. 10, line 63 – col. 12, line 8; col. 16, line 9 – col. 17, line 2. Therefore, it would have been obvious to include an interface definition specification into Brobst. One of ordinary skill in the art would have been motivated to combine the teachings of Brobst and Foody because this would have provided bi-directional interoperability with other supported object systems (col. 6, lines 47-59) and as alternative to interactive construction (col. 7, lines 48-53).

As to claim 5, Foody teaches the interface presents a data type structure according to the interface definition (meta data object) of which each member of the data type structure is a function pointer to the implementation functions (point to method table) implementing the services defined by the interface (col. 17, lines 23-35). Note discussion of claim 4 for a motivation to combine.

As to claim 6, Foody teaches an interface namespace containing a record for each interface (adapter namespace, view namespace, OSA registry, col. 10, lines 10-62). Note discussion of claim 4 for a motivation to combine. It is noted that interface identifiers are typically used in systems such as COM (col. 17, line 1) to address interfaces.

As to claims 7-10, Foody teaches each interface is associated with a version of the interface (for a particular object system/OSA 10), multiple implementations for an interface (proxy 70, proxy 72), multiple interfaces providing a same implementation (object 69 implements proxies 70 and 72), an implementation inherits from another implementation of the same interface a subset of interface methods and functions (fig. 13). Note discussion of claim 4 for a motivation to combine.

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As to claim 18, Foody teaches a registry for persistent storage of implementations (libraries, col. 7, line 48). Note discussion of claim 4 for a motivation to combine.

As to claim 19, Brobst teaches a realization mechanism (construct service objects, col. 2, lines 31-39) for allowing a client application to realize an implementation, and Foody teaches an implementation/service object includes a v table (proxy object), private data store (VClassData), and per-instance data structure (method table for proxy object). See fig. 10; col. 17, lines 23-35. Note discussion of claim 4 for a motivation to combine.

As to claims 20, 21, it is noted that these features are typical to proxy generation and proxied communication. Further, Foody teaches logic for retrieving information stored within the plugins v table, private data store, and per-instance data structure (retrieve), copying the information to a proxy v table (construct proxy object), and returning a pointer to the proxy v table to the client (AcquireProxy returns), a client uses this pointer to thereafter communicate with the interface implementation [this is inherent to a typical proxied communication]. Col. 17, lines 23-66; fig. 10. Note discussion of claim 4 for a motivation to combine.

As to claims 22-25, Brobst as modified by Foody teaches the implementation is a software personality (Foody, heterogeneous software/object systems). Since Tuxedo, Jolt, and AMS are well known software systems and therefore, it would have been obvious to include them into the system of Brobst as modified by Foody. Brobst as modified by Foody further teaches (Foody) programming attitude (programming language environment), including one of C, OLE, or Cobol (OLE, as in COM).

As to claims 30-36, 44-51, these are method claims of claims 4-10, 18-25, thus note claims 4-10, 18-25, respectively, for discussions.

11. Claims 15, 17, 41, 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brobst et al as applied to claims 1, 27 and in view of Kukura et al (U S Pat. 6,633,923).



As to claim 15, Kukura teaches a framework architecture (ART framework), including an interceptor (one or more interceptors) for adding services (direct to next interceptor) to the server component (col. 3, line 52-65; col. 6, lines 34-63). It is noted that the indefinite limitation "may include" is interpreted as "may or may not include". Therefore, it would have been obvious to include an interceptor into Brobst. One of ordinary skill in the art would have been motivated to combine the teachings of Brobst and Kukura because this would have provided flexible, robust middleware engine (Kukura, col. 3, lines 56-65).

As to claim 17, Kukura teaches the interceptor is a stack interceptor (interceptor at protocol interaction level) which during the realization of an interface implementation (chained interceptors) causes each plugin in an interception sequence to be instantiated in turn (direct to next interceptor). Col. 6, lines 34-63. Note discussion of claim 15 for a motivation to combine.

As to claims 41, 43, note discussion of claims 15, 17 and Kukura teaches combining (server generates interceptors, col. 3, line 66 – col. 4, line 4). Note discussion of claim 15 for a motivation to combine.

12. Claims 16, 42 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sue Lao whose telephone number is (703) 305-9657. A voice mail service is also available at this number. The examiner's supervisor, SPE Meng-Ai An, can be reached on (703) 305 9678. The examiner can normally be reached on Monday - Friday, from 9AM to 5PM. The fax phone number for the organization where this application or proceeding is assigned is (703) 872 9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-9600.

Sue Lao



July 22, 2004

SUE LAO  
PATENT EXAMINER